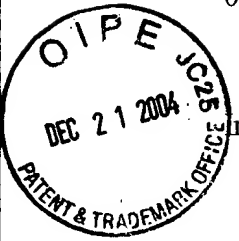


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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



In re Application of:

Hideki INA et al.

Application No.: 09/428,490 ✓

Filed: October 28, 1999

For: POSITION DETECTING SYSTEM  
AND EXPOSURE APPARATUS  
USING THE SAME

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Examiner: M. A. Lyons  
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Group Art Unit: 2877  
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Confirmation No.: 4729  
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Allowed: October 28, 2004  
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December 21, 2004  
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**Mail Stop Issue Fee**

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**ATTENTION: Office of Patent Publication/Publishing Division**

RESPONSE TO NOTICE OF DRAWING  
INCONSISTENCY WITH SPECIFICATION

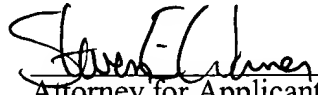
Sir:

In response to the NOTICE OF INCONSISTENCY WITH SPECIFICATION mailed November 30, 2004, in the above-identified application, enclosed is a corrected, substitute page 7 to be substituted for page 7 of the substitute specification currently on file. (The substitute specification was filed on December 17, 2002.) Corrected, substitute page 7 corrects the defect noted in the Notice. Specifically, the description of Figure 8, inadvertently omitted in the substitute specification, has been returned to the specification in its appropriate place. Also enclosed is a copy of the NOTICE OF DRAWING INCONSISTENCY WITH SPECIFICATION. Applicants request favorable consideration.

The Commissioner is authorized to charge any fees for filing this paper to Deposit Account No. 06-1205. A duplicate of this paper is attached for that purpose.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

  
\_\_\_\_\_  
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SEW/eab

Figure 3B is a schematic view for explaining an example of focus under a condition of an interference image that the outside of a mark is dark.

Figure 4 is a schematic view for explaining signals corresponding to the conditions of interference images that the outside of the mark is bright and that the outside of the mark is dark, as well as a signal corresponding to the difference between these signals.

Figure 5 is a schematic view for explaining the principle of a Linnik interference microscope system.

Figure 6 is a schematic view for explaining the principle of a Mirau interference microscope system.

Figure 7 is a schematic view of a position detecting system according to a second embodiment of the present invention.

Figure 8 is a flow chart of device manufacturing processes, in an embodiment of the present invention.

Figure 9 is a flow chart for explaining details of a wafer process in the procedure of Figure 8.

## DESCRIPTION OF THE PREFERRED EMBODIMENTS

Figure 2 is a schematic view of a main portion of a first embodiment of the present invention. In this embodiment, the invention is applied to a registration inspecting system which is incorporated into a step-and-repeat type or step-and-scan type projection exposure apparatus for use in the manufacture of semiconductor devices or any other microdevices. While the following description will be made of an example of inspection of registration between two marks, the system may be used as an alignment detecting system for detecting a position of an alignment mark or as a wafer alignment system.